VOLUME 1, ISSUE 3 APRIL 2007

SAFETY ON SHIPS

MILITARY SEALIFT COMMAND

Material Handling Equipment

While we depend on forklifts and other Material Handling Equipment (MHE) to help us support missions, we must also use common (and safety) sense to protect us from mishaps and injuries. All personnel have a role in MHE safety. Remaining mishap-free demands a conscious daily effort on the part of everyone.

We have had several incidents over the last several months involving MHE. Some of these incidents have resulted in Lost Time Injuries and material damage to equipment and vessel.

To prevent further incidents from occurring please review the following safety recommendations for forklift operations.

- Never attempt to operate a forklift unless you have been trained and authorized to do so.
- Read and understand the owner's manual.
- Understand the characteristics/ operation/limitations of your forklift.
- Know the hazards that are present during forklift operation.
- Be aware of obstacles, both ahead, behind, and overhead.
- Perform a Pre-Op safety check of the forklift.
- Always wear your seat belt (unless risk of going overboard).
- Never attempt to jump from a falling or tipping forklift.
- Take your time –Do Not Speed!!
- Be aware of your surroundings and the path your are going to travel.
- Use a safety observer to ensure your path is clear.
- If you can't see over the load, drive in reverse.
- Do not back up an incline with load. Always keep load up hill.
- Raising the load to see under it is not a safe practice.
- A forklift isn't a scaffold or a taxi: don't lift or transport people on the forks or on pallets placed on the forks. Only use an approved work platform.
- Ensure loads are stacked properly and secure on forks before moving.

While operators suffer the most fatalities, most injuries resulting from forklift accidents are suffered by pedestrians and co-workers. The most common forklift injuries result from pedestrians being run over by the truck or being struck by its load. As a pedestrian, always be aware of the presence of forklifts in the area and keep a safe working distance from them at all times. As much as possible, maintain a view of forklift and remember that unlike an automobile, the fork truck has ability for more lateral movement due to rear wheel steering.

For further guidance please review SMS Procedure 7.6-001-All Material Handling Equipment that will be

Continued on page 2

Inside this issue:

Safety Snapshots

What are the safety controls and safety hazards in the pictures? (Answers on page 6)

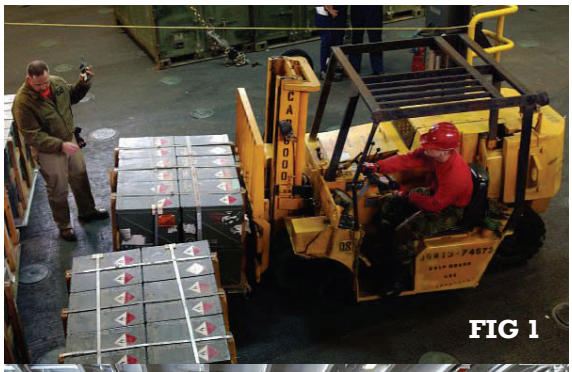


FIG 1


FIG 2


FIG 3


FIG 4


FIG 5

provided in the 6 June 07 CD and the memo to Masters and Chief Engineers #48. Further information can be found in SMS external library in NAVSUP P 538 and SWO 23.

MSFSC MHE Points of Contact:

The MSFSC MHE program is now managed by the MSFSC Logistics Directorate (N41). The Program Manager for MHE is Mr. Arthur Hughes (N412) and the alternate point of contact is Cosimo Rinaudo (N412A).

The MHE Program Office is now the single point of entry for MHE issues within MSFSC. This office interfaces directly with the Logistics Type Desks to arrange annual MHE services (grooms) onboard PM1 vessels, support repair evolutions beyond the scope of ship's force work, and to provide MHE policy.

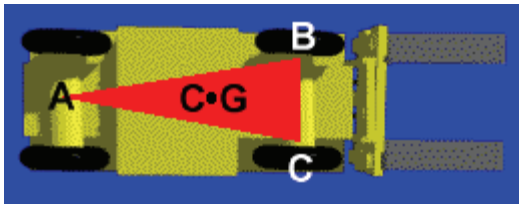
The MHE Program Office is currently working to develop a global support contract to better support MSFSC vessels. This contract is expected to provide a wide-range of support including repairs, evaluations, certifications, and full grooming capabilities.

In addition, the MHE Program Office is overseeing a recapitalization program for standard shipboard forklifts. Over the next two years, MSFSC intends to replace many of the old MHE units in the Fleet and identify other equipment requirements leading to a more efficient and safer workplace. The MHE Program Office is also arranging the installation of backing alarms on all MSFSC forklifts as the units are serviced in conjunction with availabilities and overhauls.

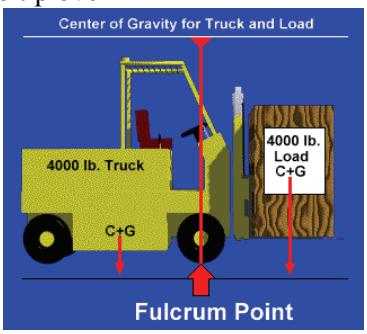
You can reach the MHE Program Office via email at:

arthur.hughes@navy.mil and coimo.rinaudo.ctr@navy.mil.

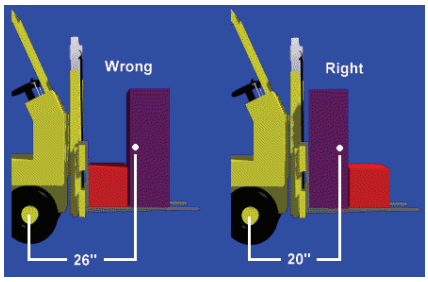
MHE Physics



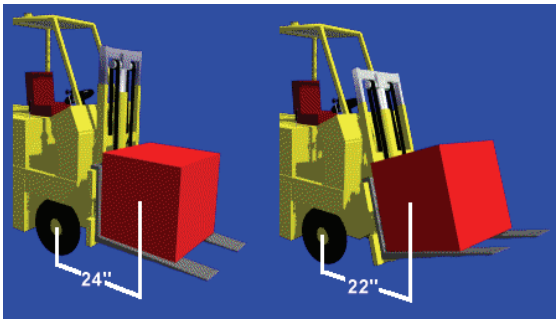
The Center of Gravity (CG) of the combined Load and MHE must remain within the ABC triangle. A CG outside the stability triangle will cause the MHE to tip over



The load must never exceed the safe working load or what the MHE is rated for. If it does, the front wheels will become a fulcrum point and the rear wheels will leave the ground and the MHE will tip forward or over.



Properly load the forks. Keep heavier items towards the rear of the forks.



Always use full backwards tilt for all loads This moves the Center of Gravity of the load further aft towards the counterweight, thus keeping the MHE stable.

MHE Success Story

The Scene

The original configuration of the TAKR 300 Bob Hope Class had five 10K fork trucks. The fork trucks were good warehouse MHE.

The Problem

The 10K MHE had difficulty traversing the many ramps aboard with loads. One such ramp can be seen above behind MHE. During cargo ops in necessary for MHE to move boxes of lashings to various holds to accommodate various loading configurations.

The Solution

The configuration was changed to three 10K and two 18K fork trucks. The 18K MHE has larger tires and handles the ramps much better than the 10K MHE.

Safety Quiz

1. T or F, You can stand under the forks, if the engine of the lift truck is turned off

2. T or F, You can place your hands and feet outside of the operator's compartment, as long as your head and body are protected.

3. If your truck starts to tip over: A) Don't jump B) Stay in your seat C) Grip the wheel securely D) Brace yourself with your feet E) All of the above

4. T or F, When transporting a load, you should not raise your load more than 8" from the ground.

5. T or F, The load capacity of a truck can be found on its data plate.

6. The front wheels of a lift truck serve as the _____ between the weight of the truck and the weight of the load being carried. A) Balance Point B) Fulcrum Point C) Center of Gravity D) Seesaw Center

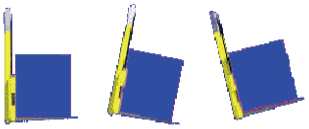
7. T or F, Wide and long loads are more unstable than other types of loads.

8. Of the three load positions in Fig 1, which is most stable? A) 1, B) 2, C) 3

9. What is wrong with this Fig 2? A) Driving in the wrong direction B) Load is too high C) Nothing

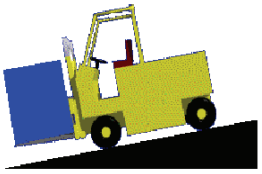
10. T or F, Rear wheel steering is used on lift trucks because it gives the operator greater control when using the forks.

Fig 1



1 2 3

Fig 2



Answers on page 5

VERTREP MHE

Flight decks during VERTREP can be very hazardous evolutions because of number of crew and simultaneous operations involved. Nets must be cleared of pallets to facilitate breakdown or pallet movement. MHE may include dollies, pallets jacks and fork trucks. Some suggestions:

- Have a plan that details of MHE operation and MHE sequence and prebrief it. Everyone should know the number of fork trucks, pallet jacks and personnel involved
- Set up standard safety lanes for MHE so that MHE traffic maybe to Starboard and foot traffic to Port

Container MHE

Most Container MHE is very large and the driver has a very restricted view. Some safety suggestions to increase safety are:

- Pre Brief tasks
- Utilize a spotter for each side who must remain in sight of driver at all times

Safety Suggestions From the Fleet

- Extra forklift control cards should be maintained as onboard spares.
- Better enforcement of forklift standards need to be in place. There are several unlicensed individuals around the fleet that operate fork trucks.
- Where manpower permits, put a walker with the fork truck to ensure a clear path so everyone starts to get the message of how dangerous fork trucks can be.
- Make an attempt to cut down on the number of fork trucks used during any given event and the increase use of pallet jacks where possible.
- Mirrors should be added to all forklifts to increase the visibility of driver.
- Limit the amount of time any one operator drives MHE. Rotate drivers to ensure highest levels of situation awareness and prevent complacency.
- Personnel working around MHE should wear high visibility vests to attract attention of MHE operators.

Safety Management System

Congratulations to the USNS Lenthal and Captain Julienne for a successful external audit and issuance of a full term Safety Management Certificate.

Congratulations to USNS Tippecanoe and Captain Helton also for a successful external audit and issuance of a full term Safety Management Certificate.

On March 29th the steering committee met in Norfolk.

Several Memos to Masters went out to the fleet:

Memo #46: Details new requirements for Reporting and Tracking of Mishaps - these requirements are dictated by 29 CFR 1960 and 29 CFR 1904 and OPNAVINST 5102.1D. Please note that the memo imposes a retroactive reporting requirement to January 2007.

Memo #48: MHE. Recent mishaps have mandated a careful of policy regarding MHE. Most ships have locally developed directives that govern shipboard use and operation of MHE. This memo ensures that these directives encompass the minimum elements required when conducting shipboard operations involving MHE.

Memo #49: Alerts ships to safety advisories associated with North and Antenna Products Ladder Rail Climbing Devices.

Safety Quiz Answers:

1. False, one should never stand under the forks
2. False, no part of the body should be outside of the operator's compartment
3. E, all the above
4. True
5. True, Load capacity is on the data plate
6. A and B
7. True
8. C, position 3 is the most stable with load tilted back
9. Load should always be up hill
10. True

Incident	Lessons Learned
Mariner was staging cargo for vertical replenishment on the flight deck. He stood too close to a fork truck that backed unexpectedly in a turn. The tire of the fork truck rode up onto his foot and ankle. Steel toed shoes were worn, equipment operator was properly licensed.	It is essential that all crew maintain situational awareness during operations. Know what hazards exist around you and communicate those hazards to others. When working around fork trucks complete your task and get clear. Do not turn your back on the hazard. Fork truck drivers; always check both sides before you back. New cargo or personnel could have appeared during your last lift.
Victim was employed in the duties of cargo handler stowing cargo in ships freezer hold when a fork truck backed over right foot.	See above.
CIVMAR tripped on deck twisted left ankle	Maintain situational awareness of areas of decks which may have trip hazards. If applicable trip hazards on deck should be painted contrasting color (yellow). Areas of non skid should be maintained to prevent slips.
Fork truck ran over mariner's foot during UNREP operations. Ankle sustained a contusion/Sprain.	Always pre brief cargo evolution to ensure that all personnel know the number of MHE units and areas that MHE will be working.
During fire fighting exercise mariner tripped and fell face first to the steel deck and sustained injury to face.	Do not rush during drills or actual emergency response. If injuries are sustained it could delay response to emergency and create another emergency situation.
While mariner was using pressure washer, debris was blow into eye by spray.	During wash down and pressure washing we don't normally think about eye protection. Any time there is loose debris (dust, paint chips) and a pressurized energy source (water, HP and LP air) eye protection should be utilized.
Pallet was not properly spotted on elevator and caused damage to coaming when elevator was moved to next deck.	MHE operators need to pay careful attention to the boundaries of their equipment to ensure preventable damage does not occur.
As member stepped from the brow to the pier, he planted his left foot and twisted his left knee.	Transition points (top and bottom steps) when climbing stairs are the most dangerous points. Extra attention must be paid at these points.

Safety Snapshots– Answers

Fig 1. Do not stand in areas where you could be crushed, i.e. between load and spot load is going.

Fig 2. Always look behind you when backing fork lift. Personnel crossing behind MHE should be looking toward hazard.

Fig 3. Properly secure the loads on pallets; stacked 5 gallon buckets w/o straps is not properly secured.

Fig 4. Always put lifelines up around elevators. The lifelines properly identify the area of hazard.

Fig 5. Do not sit on the elevator lip. The elevator could move unexpectedly and cause crush injuries .

Safety Recognition

We would like to recognize the following individuals for their continued efforts towards improving the Safety Program:

Crews of USNS Shughart, USNS Yano, USNS Bob Hope, USNS Fisher, USNS Seay, USNS Mendonca, USNS Pilalau, USNS Benevidez for their efforts in improving MHE aboard the LMSRs.

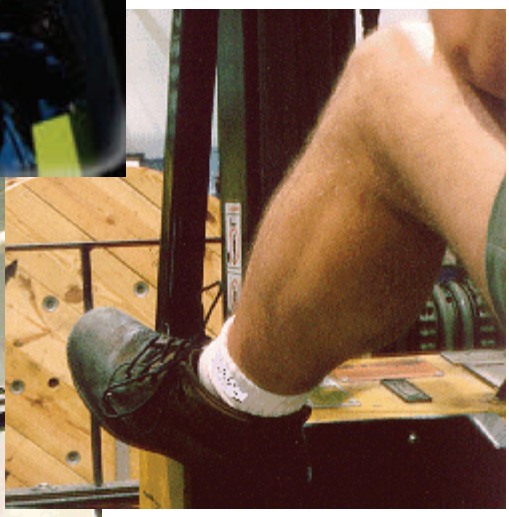
CAPT Seipert - Pat McMahon - Art Hughes - Mark Cook

Al Robinson - Chief Engineer Tom Rusnak

MHE Personal Protective Equipment and Practices

Always wear seatbelt and hard hat.

Keep feet inside protective cage



Keep hands inside protective cage

Keep entire body inside cage

MSCHQ_Safety@navy.mil

Joan Divens
Jim Fernan
Shawn Smith
Jon Berman
Tim Vickers
Jim Hayes

MSFSC Safety-ISM@navy.mil

DPA Gerry Abrams

Mike Ricci
Frank Ridge
Jim Mahon
Daphanie Brown
Perry Corbett
Chet Barnett
Mark Cook

Review SMS on shipboard LAN or at:

http://basic.share.expertman.com/imsshare

User: **ismguest**
Password: **ismguest**

This Date in History

Apr 6, 2007 *SEA DIAMOND* runs aground and sinks off the Greek coast of Santorini. Two passengers are unaccounted for.

Apr 12, 2007 *BOURBON DOLPHIN* capsizes and sinks while anchor handling off Shetland Islands. Seven crew rescued, eight others lost.

Apr 12, 1966 *USNS CORPUS CHRISTI BAY* arrives in Cam Ranh Bay, Vietnam with the Army aviation maintenance battalion of the 34th General Support Group aboard. The unit was the 1st Transportation Corps Battalion (Depot) (Seaborne), the only Floating Aircraft Maintenance Facility in the Army.

Apr 14, 1912 *TITANIC* sinks after colliding with iceberg. 1490 perish. The *Titanic* disaster led to the first International Convention for the Safety Of Life at Sea which resulted in the formation of the International Ice Patrol, an agency of the United States Coast Guard that monitors and reports on the location of North Atlantic Ocean icebergs. New regulations that all passenger vessels would have sufficient lifeboats for everyone on board, that appropriate safety drills would be conducted, and that radio communications would be operated 24 hours a day along with a secondary power supply, so as not to miss distress calls. In addition, it was agreed that the firing of red rockets from a ship must be interpreted as a distress signal.

Apr 14, 1988 *USS SAMUEL B ROBERTS* hits mine in the Persian Gulf. The mine blew a 15-foot (5 m) hole in the hull, flooded the engine room, and knocked the two gas turbines from their mounts. The crew fought fire and flooding for five hours, thereby saving the ship. Ten sailors were injured.

Apr 15, 1976 *OCEAN EXPRESS* Capsizes and sinks in Gulf of Mexico while it was being towed by three tugs from one drilling site to another. The crew abandoned the rig in two survival capsules. One capsule capsized due to wave action and shifting weight. Seven men escaped from the overturned capsule, however, thirteen other persons were trapped inside and drowned.

Apr 16, 1947 *SS GRAND CAMP* explosion in Texas City started with the fire and detonation of approximately 17,000,000 pounds (8,500 tons) of ammonium nitrate on board the French -registered vessel in the port of Texas City, Texas, killing 581 people.

Apr 26, 1952 *USS HOBSON* sinks after colliding with USS *WASP*; 176 lives lost.